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EXAMINER	
ANDREWS, LEON T	
ART UNIT	PAPER NUMBER
2416	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,647	SUGAYA, SHIGERU	
	Examiner	Art Unit	
	LEON ANDREWS	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/18/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-31** are being rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada (Patent No.: US 7,133,387 B2) in view of Rakib et al. (Pub. No.: US 2001/0046266 A1) and Besenfelder (3,832,684).

Regarding Claim 1, Nakada discloses a wireless communication system operating without a base station and including (Fig. 16, wireless system network apparatus, column 1, line 46; transmission and reception of a packet when apparatus A transmits data to apparatus B which shares the media with apparatus A, column 1, lines 54-56) a plurality of communication apparatuses (Figs. 1A and 1B, mobile communications system with communication terminals 2, 3 and 4, column 3, lines 40-42) associated with respective communication areas, the system comprising:

an information transmission source communication apparatus (Fig. 6, 44, transmission unit) for forming a data packet (correlations between prescribed preamble signals, column 4, lines 6-8) by inserting a preamble signal (Fig. 5, 28, preamble signal) into each transmission data and transmitting the formed data packet (Fig. 6, transmission unit 44 modulates and transmits preamble packets and data generated by downstream signal generation unit 45, column 1, lines 41-44) to one or more of the communication apparatuses that are located within the communication area of the transmission source communication apparatus; and

a communication apparatus (Fig. 1A, terminal 2) located within the communication area of the transmission source communication apparatus and not currently communicating for

recognizing that the transmission path is used for a predetermined interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) from a time (time period of the preamble signal, column 4, lines 36-37) when the preamble signal is detected (determines whether a preamble was received, column 4, line23-24);

Nakada fails to disclose a communication system without a base station and a preamble signal inserted in transmission packet so as to be integral with each transmission data.

But, Rakib et al. discloses bidirectional communication system having a central unit transmitter and a remote unit receiver, paragraph [0016], page 2, lines 1-77, and preamble data (signal) must be inserted into every timeslot's data to correct (be integral with) the phase and amplitude of the signals (transmission data) for that timeslot, paragraph [0311], page 29, lines 10-13.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use bidirectional communication system as the communication system without a base station because this would have allowed the central unit to receive downstream data and the remote unit to receive local carrier signal, paragraph [0016], page 2, lines 3-9, and a preamble signal inserted in transmission packet so as to be integral with each transmission data by using a preamble signal inserted in transmission packet because this would have allowed for the insertion of preamble data (signal) into every data (transmission data) and for the correction of (be integral with) the carrier signal for that timeslot [0311], page 29, lines 10-13.

Also, Nakada in combination with Rakib et al. fails to disclose an apparatus not currently communicating engaging in wireless communication over the transmission path when it does not detect the preamble signal.

But, Besenfelder discloses end of the preamble signal (not communicating) before the enable signal (communicating) is applied to the input terminal (apparatus), column 5, lines 19-20; before the preamble itself has been detected, the apparatus (not currently communicating) develops an error signal, column 2, lines 13-16.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use apparatus not currently communicating is operable to communicate over the transmission path when it does not detect the preamble signal because this would have allowed a (preamble) signal that has not been applied (detected) to the terminal (apparatus) and to enable the preamble signal coupled through to the lead of the output terminal, column 5, lines 21-26.

Regarding Claim 2, Nakada discloses the wireless communication system as claimed in claim 1, wherein

the information transmission source communication apparatus forms the data packet at a predetermined time unit (Fig. 2, 16, delay memory unit), and further comprising:

an information reception target communication apparatus (Fig. 2, 15, code generation unit 15) for generating acknowledge (ACK) information in response to the success in correctly receiving the data and for generating not acknowledge (NACK) information (Fig. 2, 15, code generation unit 15 generates ACK signal or NACK signal on the basis of the output from the

preamble determination unit 14, column 4, lines 32-34; Fig. 3) in response to a failure in correctly receiving the data (Fig. 2, 14, preamble determination unit 14 determines whether a preamble was received or not (failure), column 4, lines 23-24), forms an ACK (Fig. 3, ACK signal 8 for allowing to use the message part is transmitted for preamble signal 6, column 4, lines 65-66) or NACK packet to which a preamble signal is inserted, and returns it, just after the reception of the data packet (Fig. 3, S26, message part available at terminal 3, column 4, line 67);

said information transmission source communication apparatus retransmits the data packet of said predetermined time unit in response to the reception of the NACK packet (Fig. 3, NACK signal 7 for rejecting to use the message part is transmitted for preamble signal 5 at terminal 2, column 5, lines 1-2); and

said communication apparatus not currently communicating recognizes a use of the transmission path for retransmission (terminal 3 which is allowed to use the message part can now transmit and receive data, column 5, line 4-6) based on the reception of the preamble signal for a period (time period of the preamble signal, column 4, lines 36-37) from the detection of the NACK packet to detection of the next ACK packet.

Regarding Claim 3, Nakada discloses the wireless communication system as claimed in claim 2, wherein

other communication apparatuses not currently communicating (Fig. 3, terminal 3) recognize the termination of the use of the transmission path (Fig. 3, S26, message part available) when the ACK packet cannot be detected (Fig. 3, ACK 11) based on the detection of the preamble signal (Fig. 5, 28, preamble signal) until a predetermined elapsed time (prescribed

delay time period of the preamble signal for NACK, column 4, lines 36-37) from when the NACK packet is received (Fig. 3, NACK 12).

Regarding Claim 4, Nakada discloses the wireless communication system as claimed in claim 2, wherein

the information reception target communication apparatus adds the preamble signal to a top (control signal of which the header designates a base station, column 1, lines 24-25) of a beacon signal (base station transmits a free channel signal (beacon signal) for allowing the mobile station to transmit the control signal and an identifier for the base station, column 1, lines 25-27) describing information regarding a communication apparatus (mobile station, column 1, line 23) of which transmission is permitted with priority (data items from the communications terminals are determined and priorities are setup, column 1, lines 38-40), and transmits the beacon signal;

the communication apparatus specified by the beacon signal transmits a predetermined unit of data packet (data items from the communication terminals are determined and two-step priorities are set up on the basis of the determination result, column 1, lines 38-40) when there is data to be transmitted to said information reception target apparatus; and

other communication apparatuses (Fig.3, terminal 4) not currently communicating recognize based on the detection of the preamble signal the use of the transmission path for the time interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) corresponding to the packet length (communication terminal 30 receives the down stream

standard signal which is as long as the preamble, column 1, lines 45-49) from when said beacon signal is received.

Regarding Claim 5, Nakada discloses the wireless communication system as claimed in claim 2, wherein

said information transmission source communication apparatus transmits a transmission request packet (RTS) into which the preamble signal is inserted when no preamble signal is detected for a predetermined time interval (prescribed delay time period of the preamble signal, column 4, lines 36-37); and

said information reception target communication apparatus returns a confirmation notice packet (CTS) (data packet is confirmed, column 1, line 36) in response to the reception of a transmission request packet (RTS) (packet with preamble and data is modulated by a short period, column 1, lines 64-65).

Regarding Claim 6, Nakada discloses the wireless communication system as claimed in claim 5, wherein

said other communication apparatus not currently communicating recognizes based on the detection of the preamble signal the use of the transmission path from when the NACK packet is detected (Fig. 3, NACK 12), during a predetermined interval (Fig. 3, interval between NACK 12 and ACK 11) from the reception of the confirmation notice (CTS) packet (data packet is confirmed, column 1, line 36), to when the next ACK packet is detected (Fig. 3, ACK 11).

Regarding Claim 7, Nakada discloses the wireless communication system as claimed in claim 5, wherein

said information source communication apparatus makes the data packet include therein an element (channel number for a data packet, column 1, lines 35-36) of the transmission request (RTS) for a next data packet transmission (channel allocation is controlled and data items are determined for competitive (transmitting) terminals, column 1, lines 36-39) when transmission data exists.

Regarding Claim 8, Nakada discloses the wireless communication system as claimed in claim 5, wherein

said information reception target communication apparatus makes the ACK packet (Fig. 3, ACK 11) or the NACK packet corresponding to the received data packet include an element of confirmation notice (CTS) (data packet is confirmed, column 1, line 36).

Regarding Claims 9 and 20 Nakada discloses a wireless communication apparatus (Figs. 1A and 1B, terminals 2, 3, 4) and method (method for channel access, column 1, lines 7-8) operating within a communication system not having a base station (Fig. 16, wireless system network apparatus, column 1, line 46; transmission and reception of a packet when apparatus A transmits data to apparatus B which shares the media with apparatus A, column 1, lines 54-56) and including a plurality of communication apparatuses (Figs. 1A and 1B, mobile communications

system with communication terminals 2, 3 and 4, column 3, lines 40-42) associated with respective communication areas, comprising:

buffer means (Fig. 2, 16, delay memory unit) for dividing transmission data by a predetermined unit (Fig. 2, 14, preamble determination unit for determining whether or not to transmit signals, column 3, lines 3-5);

transmission data processing means (Fig. 2, 13, correlation unit) for adding a predetermined preamble signal (calculates correlations between prescribed preamble signals, column 4, lines 6-8) to divided transmission data from the buffer means to form a transmission packet (preamble packets and data generated by downstream signal generation unit 45, column 1, lines 42-44);

preamble detection means (Fig. 2, 14) for detecting a preamble signal (determines whether a preamble was received, column 4, line23-24) on a transmission path (Fig. 5, RACH, random access channel); and

transmission means (Fig. 6, 44) for transmitting the formed packet when no preamble signal is detected for a predetermined interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) at said preamble detection means, the formed packet being transmitted to one or more communication apparatuses (Figs. 1A and 1B, terminals 2, 3, 4) within the communication area of the communication apparatus transmitting the packet,

whereby a communication apparatus (Fig. 1A, terminal 2) located within the communication area of the communication apparatus transmitting the packet and not currently communicating recognizes that the transmission path (Fig. 5, RACH, random access channel) is

used for a predetermined interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) from a time (time period of the preamble signal, column 4, lines 36-37) when the preamble signal is detected (determines whether a preamble was received, column 4, line23-24);

Nakada fails to disclose a communication system without a base station and a preamble signal inserted in transmission packet so as to be integral with each transmission data.

But, Rakib et al. discloses bidirectional communication system having a central unit transmitter and a remote unit receiver, paragraph [0016], page 2, lines 1-77, and preamble data (signal) must be inserted into every timeslot's data to correct (be integral with) the phase and amplitude of the signals (transmission data) for that timeslot, paragraph [0311], page 29, lines 10-13.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use bidirectional communication system as the communication system without a base station because this would have allowed the central unit to receive downstream data and the remote unit to receive local carrier signal, paragraph [0016], page 2, lines 3-9, and a preamble signal inserted in transmission packet so as to be integral with each transmission data by using a preamble signal inserted in transmission packet because this would have allowed for the insertion of preamble data (signal) into every data (transmission data) and for the correction of (be integral with) the carrier signal for that timeslot [0311], page 29, lines 10-13.

Also, Nakada in combination with Rakib et al. fails to disclose an apparatus not currently communicating engaging in wireless communication over the transmission path when it does not detect the preamble signal.

But, Besenfelder discloses end of the preamble signal (not communicating) before the enable signal (communicating) is applied to the input terminal (apparatus), column 5, lines 19-20; before the preamble itself has been detected, the apparatus (not currently communicating) develops an error signal, column 2, lines 13-16.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use apparatus not currently communicating is operable to communicate over the transmission path when it does not detect the preamble signal because this would have allowed a (preamble) signal that has not been applied (detected) to the terminal (apparatus) and to enable the preamble signal coupled through to the lead of the output terminal, column 5, lines 21-26.

Regarding Claims 10 and 21, Nakada discloses the wireless communication apparatus and method, further comprising:

reception means (Fig. 6, 33, receiving unit) for receiving a signal added to the preamble signal (preamble signal and transmission data, column 2, lines 65-66) in response to the detection of the preamble signal; and

reception data processing means (Fig. 3, base station 1) for analyzing the signal (transmitter/receiver in the base station analyses the signal sequence of the preamble, column 3, lines 59-62) received by said reception means.

Regarding Claims 11 and 22, Nakada discloses the wireless communication apparatus and method, wherein

said reception data processing means generates acknowledge (ACK) information (Fig. 3, ACK 8) in response to correctly receiving a for-own-station data (transmission data, column 2, line 66) and not acknowledge (NACK) information (Fig. 3, NAK 7) in response to incorrectly receiving the for-own-station data;

said transmission data processing means forms an ACK packet (Fig. 3, ACK 11) or an NACK packet (Fig. 3, NACK 12) into which a preamble signal (preamble signal, column 2, line 65) is inserted; and

said transmission means transmits the ACK packet (Fig. 3, ACK 11) or the NACK packet (Fig. 3, NACK 12) just after the reception of the data.

Regarding Claims 12 and 23, Nakada discloses the wireless communication apparatus and method, wherein

upon not currently communicating (the base station stops transmitting knowing immediately that the mobile station is in its zone, column 1, lines 29-31), said reception data processing means recognizes use of the transmission path for the data retransmission from when the NACK packet is detected to when the next ACK packet is detected (Fig. 3, ACK 11).

Regarding Claims 13 and 24, Nakada discloses the wireless communication apparatus and method, wherein

said reception data processing means recognizes a termination of use (the base station stops transmitting knowing immediately that the mobile station is in its zone, column 1, lines 29-31) of the transmission path when no ACK packet (Fig. 3, ACK 11) is detected until a predetermined interval (prescribed delay time period of the preamble signal for NACK, column 4, lines 36-37) has elapsed from when the NACK packet (Fig. 3, NACK 12) is received.

Regarding Claims 14 and 25, Nakada discloses the wireless communication apparatus and method, wherein

said transmission data processing means generates a beacon signal (base station transmits a free channel signal (beacon signal) for allowing the mobile station to transmit the control signal and an identifier for the base station, column 1, lines 25-27) describing information regarding a communication apparatus (mobile station, column 1, line 23) from which transmission is permitted with priority (data items from the communications terminals are determined and priorities are setup, column 1, lines 38-40); and

said reception data processing means analyzes (transmitter/receiver in the base station analyses the signal sequence of the preamble, column 3, lines 59-62) whether the transmission of its own station (preamble signal and transmission data, column 2, lines 65-66) is permitted with priority by analyzing (transmitter/receiver in the base station analyses the signal sequence of the preamble, column 3, lines 59-62) the beacon signal.

Regarding Claims 15 and 26, Nakada discloses the wireless communication apparatus and method, wherein

upon not currently communicating (the base station stops transmitting knowing immediately that the mobile station is in its zone, column 1, lines 29-31), said reception data processing means recognizes use of a transmission path (Fig. 5, RACH) for a time interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) corresponding to the packet length (communication terminal 30 receives the down stream standard signal which is as long as the preamble, column 1, lines 45-49) from when the beacon signal is received.

Regarding Claims 16 and 27, Nakada discloses the wireless communication apparatus and method, wherein

said transmission data processing means generates a transmission request (RTS) packet (packet with preamble and data is modulated by a short period, column 1, lines 64-65) for a data transmission target (Fig.3, terminal 4);

and in response to reception of the transmission request (RTS) packet from another communication apparatus (Fig.3, terminal 4) by said reception processing means, said transmission data processing means generates a confirmation notice (CTS) packet (data packet is confirmed, column 1, line 36).

Regarding Claims 17 and 28, Nakada discloses the wireless communication apparatus and method, wherein

upon not currently communicating (the base station stops transmitting knowing immediately that the mobile station is in its zone, column 1, lines 29-31), said reception data processing means recognizes use of a transmission path (Fig. 5, RACH) from when a not

acknowledge (NACK) packet (Fig. 3, NACK 12) is detected, during a predetermined interval (prescribed delay time period of the preamble signal, column 4, lines 36-37) from the reception of the confirmation notice (CTS) packet (data packet is confirmed, column 1, line 36), to when a next acknowledge (ACK) packet (Fig. 3, ACK 11) is detected.

Regarding Claims 18 and 29, Nakada discloses the wireless communication apparatus and method, wherein

said transmission data processing means makes the data packet include therein an element (channel number for a data packet, column 1, lines 35-36) of the transmission request (RTS) for a next data packet transmission (channel allocation is controlled and data items are determined for competitive (transmitting) terminals, column 1, lines 36-39) when a following transmission data (transmission data, column 2, line 66) exists.

Regarding Claims 19 and 30, Nakada discloses the wireless communication apparatus and method, characterized in that:

said transmission data processing means makes an acknowledge (ACK) packet (Fig. 3, ACK 11) or a not acknowledge (NACK) packet (Fig. 3, NACK 12) corresponding to the received data packet include an element (channel number for a data packet, column 1, lines 35-36) of the confirmation notice (CTS) (data packet is confirmed, column 1, line 36) therein.

Regarding Claim 31, Nakada discloses a computer-readable medium (Fig. 4, flow chart) containing computer-executable instructions to perform a wireless communication method

(method for channel access, column 1, lines 7-8) in a communication system not having a base station and including (Fig. 16, wireless system network apparatus, column 1, line 46; transmission and reception of a packet when apparatus A transmits data to apparatus B which shares the media with apparatus A, column 1, lines 54-56) a plurality of communication apparatuses (Figs. 1A and 1B, mobile communications system with communication terminals 2, 3 and 4, column 3, lines 40-42) associated with respective communication areas, the method comprising:

a buffering step (Fig. 4, S13), for dividing transmission data by a predetermined unit (Fig. 2, 14);

a transmission data processing step (Fig. 4, S12), for adding a predetermined preamble signal (calculates correlations between prescribed preamble signals, column 4, lines 6-8) to divide data from the buffering step to form a transmission packet (preamble packets and data generated by downstream signal generation unit 45, column 1, lines 42-44);

a preamble detection step (Fig. 4, S15), for detecting a preamble signal (determines whether a preamble was received, column 4, line23-24) on a transmission path (Fig. 5, RACH, random access channel);

a transmission step (Fig. 4, S17) for transmitting the formed transmission packet when no preamble signal is detected at said preamble detection means for a predetermined interval (prescribed delay time period of the preamble signal, column 4, lines 36-37), the formed packet being transmitted to one or more communication apparatuses (Figs. 1A and 1B, terminals 2, 3, 4) within the communication area of the communication apparatus transmitting the packet;

a reception step (Fig. 4, S11) for receiving the signal added to the preamble signal (preamble signal and transmission data, column 2, lines 65-66) in response to the detection of the preamble signal; and

a reception data processing step (Fig. 4, S12) for analyzing (transmitter/receiver in the base station analyses the signal sequence of the preamble, column 3, lines 59-62) the information received in said reception step,

whereby a communication apparatus (Fig. 1A, terminal 2) located within the communication area of the communication apparatus transmitting the packet and not currently communicating recognizes that the transmission path (Fig. 5, RACH, random access channel) is used for a predetermined interval from a time when the preamble signal is detected;

Nakada fails to disclose a communication system without a base station and a preamble signal inserted in transmission packet so as to be integral with each transmission data.

But, Rakib et al. discloses bidirectional communication system having a central unit transmitter and a remote unit receiver, paragraph [0016], page 2, lines 1-77, and preamble data (signal) must be inserted into every timeslot's data to correct (be integral with) the phase and amplitude of the signals (transmission data) for that timeslot, paragraph [0311], page 29, lines 10-13.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use bidirectional communication system as the communication system without a base station because this would have allowed the central unit to receive downstream

data and the remote unit to receive local carrier signal, paragraph [0016], page 2, lines 3-9, and a preamble signal inserted in transmission packet so as to be integral with each transmission data by using a preamble signal inserted in transmission packet because this would have allowed for the insertion of preamble data (signal) into every data (transmission data) and for the correction of (be integral with) the carrier signal for that timeslot [0311], page 29, lines 10-13.

Also, Nakada in combination with Rakib et al. fails to disclose an apparatus not currently communicating engaging in wireless communication over the transmission path when it does not detect the preamble signal.

But, Besenfelder discloses end of the preamble signal (not communicating) before the enable signal (communicating) is applied to the input terminal (apparatus), column 5, lines 19-20; before the preamble itself has been detected, the apparatus (not currently communicating) develops an error signal, column 2, lines 13-16.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use apparatus not currently communicating is operable to communicate over the transmission path when it does not detect the preamble signal because this would have allowed a (preamble) signal that has not been applied (detected) to the terminal (apparatus) and to enable the preamble signal coupled through to the lead of the output terminal, column 5, lines 21-26.

Citation of Pertinent Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mayor et al. (Patent No.: US 6,859,463 B1) discloses methods and apparatus for organizing selection of operational parameters in a communication system.

Hieda et al. (Patent Number: 5,592,483) discloses data communication apparatus achieving efficient use of the media.

Nakahara et al. (Patent No.: US 7,027,464 B1) discloses OFDM signal transmission scheme and OFDM signal transmitter/receiver.

Sato (Pub. No.: US 2002/0136189 A1) discloses radio communication system and apparatus.

Wakamatsu (Pub. No.: US 2004/0052319 A1) discloses demodulation timing generation circuit and demodulation apparatus.

Response to Arguments

3. Applicant's arguments filed March 2, 2009 have been fully considered as follows:

- In the remarks on page 15 of the amendment, applicant contends that none of the cited references discloses 'the preamble signal is inserted in each transmission packet so as to be integral with each transmission data' and 'the communication apparatus located within the communication area of the transmission source communication apparatus and not currently

communicating engages in wireless communication over the transmission path when it does not detect the preamble signal'.

- The examiner respectfully maintains the prior prosecution in that the preamble data (signal) must be inserted into every timeslot's data to correct (be integral with) the phase and amplitude of the signals (transmission data) for that timeslot, paragraph [0311], page 29, lines 10-13 and preamble signal (not communicating) before the enable signal (communicating) is applied to the input terminal (apparatus), column 5, lines 19-20. Additionally, before the preamble itself has been detected, the apparatus (not currently communicating) develops an error signal, column 2, lines 13-16.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LA/la
May 15, 2009

/Kevin C. Harper/

Primary Examiner, Art Unit 2416